

Title: PAINT CONTAINER

FIELD OF THE INVENTION

This invention relates to the field of containers, and more particularly to containers that hold paintable liquids for use in painting, construction, and related activities.

BACKGROUND OF THE INVENTION

Buildings and physical structures such as fences and bridges generally require painting when newly constructed, as well as periodic repainting, to maintain a fresh, clean, and attractive appearance. Two types of painting instruments are commonly used, rollers and brushes. Paint rollers are generally appropriate for painting large open surface areas such as walls and doors, while paint brushes are typically used for smaller and finer areas such as window frames, trim, fences, baseboards, deck edges, and wall and ceiling intersections.

When painting it is necessary to have a container to hold the paint being applied. In particular, when using a brush a painter will typically hold the brush with one hand and the container with the other hand. In many paint projects the painter will move about extensively, including climbing scaffolding and ladders, to brush paint in the various places where detail work is required.

Painter mobility for extended periods is particularly the case in large or professional paint jobs. Accordingly, it is desirable to have a paint container that is comfortable to hold, particularly for long periods, and that is not too heavy.

For each brush application the paint brush is usually first dipped in the paint so that it is completely immersed. When removed the brush is usually soaked and dripping with excess paint. The painting does not usually proceed with the brush in this condition since there is a risk that too much paint will be applied to the surface being painted. Also, when moving the brush to the paint

surface there is a chance that random drops of excess paint will drip onto the floor, making a mess. Accordingly, the brush is usually wiped or dabbed to reduce the excess, and to produce a desired paint profile on the brush that is suitable for the particular surface being painted.

Brush wiping generally involves scraping or moving a broad side of the brush against an edge, and is an effective means of removing most of the paint from the portion of the brush being wiped. The movement usually begins at or near the top of the brush, where the bristles join the brush handle, and proceeds down the bristles towards their unattached or free end. The movement is stopped at whatever point it is desired to leave paint on the brush.

It is desirable if the edge used for wiping is at least as wide as the brush being wiped, since that reduces the likelihood that repeated wiping strokes will be needed.

A typical profile produced by wiping is a line of paint along the bottom edge or free end of the brush. Further variations are possible in that the paint may be left only along a portion of the bottom edge, or even just a corner, rather than along the whole edge. The brush wiping profile is useful for fine work where care must be taken to avoid getting paint on a surface adjacent to the surface being painted. This may include, for example, painting the part of a window frame adjacent to the glass windowpane.

Brush dabbing involves laying all or a portion of a broad side of the soaked brush against a dabbing surface so that the excess drips off or is removed by adhesion. The brush may be "tapped" lightly to accelerate the process. The dabbing movement is continued until the desired amount of paint is left on the side of the brush being dabbed. For efficiency purposes, to reduce the need for overlapping and extra dabbing strokes, it is desirable for the dabbing surface to be at least as wide as the brush being dabbed. The resulting paint profile on the brush is a relatively uniform coat having a desired thickness, without any dripping excess. Dabbed brushes are well suited for

painting broad areas that are not finely detailed and that are too narrow to be served by rollers, such as baseboards, for example.

The above described container and brush application features are helpful in improving painting efficiency. However, many of the devices and containers in current use or that have been proposed lack or inadequately address these desired features.

For example, the containers in which paint is commonly sold present a number of problems. Large paint cans that hold one gallon (about 3.79 litres) are too large and heavy, at about 7½ inches high, 6½ inches in diameter, and 10-12 lbs. in weight, to be conveniently carried for any length of time. Further, the only available surface for wiping and dabbing is the narrow and curved rim of the can, which is far from optimal.

Further problems are also caused by the wire handle that is usually provided for these cans. The handle extends in a semicircle over the top of the can, and can therefore obstruct the opening and interfere with easy insertion of the paint brush into the can. To avoid this, the painter will sometimes shift weight to displace the handle, which can cause wrist strain. The painter may put less paint in the can, to reduce the weight and therefore the wrist strain. However, this approach forces the painter to reach deeper into the can, which both slows the process and often results in paint from the rim getting on the painter's arm. The wire handle itself can dig into the painter's hand, which is obviously uncomfortable.

Some paint containers have become available which replace the wire handle with an alternative type of semicircular handle. However, in this design the container is held from the bottom, and the painter is required to put down the brush and use both hands to put down or pick up the container. This is not only inconvenient, but can result in a loss of balance when working on a ladder.

The smaller size retail paint cans are generally more manageable, being about 5 inches in height, 4 ¾ inches in diameter, and weighing about

4 lbs. Unlike the larger cans it is possible to hold the small cans directly in one hand without a handle. However, the diameter of the cans is still large enough to be uncomfortable for many people to hold. Further, even stronger or larger people who are initially comfortable may experience some hand strain after holding a can of this diameter for extended periods. In addition, the cylindrical shape of the can provides a poor gripping surface and is susceptible to slipping, particularly when wet. Dropping such a can could not only create a mess but also present a risk of injury.

Another aspect of the small cans is that the open top is only about 3 1/4 inches in diameter. The small cans therefore could not be used with paint brushes that are four inches in width, and would be awkward and inconvenient when used with the popular three inch brush size. In addition, the only surface available for wiping and dabbing is the rim, which is not only narrow like the rim of the large cans, but has an even more pronounced curvature due to its smaller diameter.

As a result of the above problems with retail paint cans, it is common for painters to make their own ad hoc paint containers out of everyday items such as, for example, old margarine containers or cut-off plastic juice bottles. These containers however continue to suffer from many of the same problems such as being uncomfortable to hold, having inadequate wiping and dabbing surfaces, and low paint capacity in some cases.

Some attempts have been made in the past to provide a convenient paint container. For example, U.S. Design Patent No. 401,704 to Clark discloses a paint dispenser with a brush wipe and rest, and an indented handle. However, the brush wipe is a bar across the top opening, which partly obstructs the opening and compels the painter to take care not to hit the bar when inserting the brush. The brush wipe also cannot function as a dabbing surface. In addition, the handle appears difficult to grip comfortably because it is positioned at the bottom of the container, and because it forces part of the user's thumb to press against an unindented portion.

Another example is Shea, U.S. Patent No. 6,105,816, which discloses a painter's aid to hold paint, a paint brush rest, and a stepped wiping surface.

One problem with Shea is that the gripping surface is a smooth, relatively large diameter cylinder similar to the retail paint cans described above. Therefore, the device will likely be uncomfortable to hold and prone to slippage. Another problem is that the brushed wiping surface is substantially within the body of the container. Attempts to wipe the brush may therefore result in the brush picking up more paint if the bristle tips make contact with the paint. There is also no dabbing surface provided. As shown in Fig. 15, the platform 22 is used as a brush rest. Dabbing on the platform 22 would cause it to be covered in paint, which is contrary to its use as a brush rest.

SUMMARY OF THE INVENTION

What is desired is a paint container which overcomes one or more of the problems associated with such prior art containers.

Preferably, the paint container will be comfortable to hold for extended periods. In particular, it would be preferable for the paint container to have a recessed grip sized and shaped to be comfortably gripped by a user. The container should preferably be sized so that when full of paint it will not be too heavy, or produce an uncomfortable level of rotational torque. The container will preferably provide a convenient wiping edge and dabbing surface. This may preferably be achieved by a tongue that is wider than most brushes in common use, such as three and four inch wide brushes. The paint container will preferably also allow for efficient brush dipping, such as by preferably having an unobstructed top opening, an inclination to tilt forward, and sufficient space to move the brush from dipping to wiping or dabbing without needing to re-orient the brush. It would also be preferable for the paint container to be low cost, re-usable and recyclable, and stackable to lower selling costs.

Accordingly, there is provided a container for holding paintable liquid, the container comprising:

a base;

a continuous wall extending up from the base and forming a top opening;

a gripping means formed in the wall and being sized, shaped, and positioned to permit a user to grip said gripping means to hold said container;

a dipping section adjacent to said gripping means, said dipping section being sized, shaped, and positioned to permit a brush to be inserted into said dipping section through said top opening to contact said liquid; and

an inclined tongue portion extending upwardly and outwardly from the wall adjacent to said dipping section, the tongue portion being sized, shaped and positioned to permit the brush to be dabbed thereon to remove excess liquid from said brush, and to permit said excess liquid to drain into said dipping section.

BRIEF DESCRIPTION OF THE DRAWINGS

Reference will now be made, by way of example only, to preferred embodiments of the invention as illustrated in the attached figures.

Figure 1 is a perspective view of the paint container of the present invention;

Figure 2 is a see through view of Fig. 1;

Figure 3 is a top view of the paint container of Fig. 1;

Figure 4 is a perspective view of three paint containers of Fig. 1 arranged in a stack;

Figure 5 is the same view as Fig. 1 showing a user's hand gripping the gripping means and a paint brush inserted in the dipping section;

Figure 6a is the same view as Fig. 1 showing a paint brush being wiped on the leading edge of the tongue portion;

Figure **6b** is a view of the paint brush of Fig. 6a after it has been wiped;

Figure **7a** is the same view as Fig. 1 showing a paint brush being dabbed on the tongue portion; and

Figure **7b** is a view of the paint brush of Fig. 7a after it has been dabbed.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The paint container of the present invention is shown in Fig. 1, and is generally indicated with reference numeral 10. For additional clarity, a “transparent” version of the drawing of Fig. 1 is shown in Fig. 2. It can be seen that the paint container 10 comprises a base 12 and a continuous wall 14 extending up from the base and forming a top opening 16. It can be appreciated that this structure defines an interior space or contained volume 18 inside the container 10 between the base 12, wall 14, and top opening 16.

The paint container 10 further broadly comprises a gripping means 20, a dipping section 22, and a tongue portion 24. For convenient reference, the container may be considered to have a first end or back 26 and a second end or front 28. It can be seen that the gripping means 20 begins at the back 26 and extends into the container. The dipping section 22 is adjacent to the gripping means 20 and extends from the far end of the gripping means 20 to the second end or front 28. The tongue portion 24 extends outwardly and upwardly from the front or second end 28 of the wall 14, adjacent to the dipping section 22.

The paint container 10 of the present invention is configured to hold a paintable liquid or paint 30, and to enable the paint to be dispensed onto a paint brush 32 for application on a surface by a painter. As discussed in greater detail below, the container 10 also includes features that enable the user to hold the container in one hand, and to adjust the amount and distribution of paint on the brush.

In one embodiment of the present invention the wall 14 is perpendicular to the base, and accordingly extends up to the top opening 16 in a substantially vertical orientation. However, it is preferred that the wall 14 taper outwardly as the wall extends up from the base. In this way the width, length, and cross-sectional dimensions of the top opening 16 at the top of the container 10 will be larger than the corresponding dimensions of the base 12 at the bottom of container 10. The present invention comprehends any degree of outward taper, but adequate results may be achieved with an outward taper that is relatively small. For example, an outward taper of .04 inches for a vertical rise of 1 inch has been found to be adequate.

Extending the wall 14 with an outward taper is preferred because the outward taper enhances the ability of the container 10 to be stackable. More particularly, the wall 14 and other features such as the gripping means 20 are preferably sized, shaped, and positioned to permit at least one of the containers 10 to be stacked inside another of the containers 10.

The stackable feature of the present invention is illustrated in Fig. 4, which shows a group of three containers 10 arranged inside one another in a single stack. It can be appreciated that the stack arrangement greatly reduces the total space occupied by the constituent containers, in comparison to the space that the containers would otherwise occupy if they were separated and laid out side by side. Stackability of the container 10 is accordingly a desired feature because it reduces the space required to transport and store multiple containers, and also reduces the shelf space needed to display the containers in a retail environment.

The gripping means 20 is preferably formed in the wall 14, and is generally sized, shaped, and positioned to permit a user to grip the gripping means, to hold the container 10.

The preferred embodiment of the gripping means 20 is at least one recess 34 in the wall 14. For additional clarity, Fig. 2 shows dotted lines 36 to indicate the path that wall 14 would have taken if not for the recess 34. It can

be seen that wall 14 first breaks its path by following a tapered section 38. In the embodiment shown recess 34 joins tapered section 38 at a termination gripping point 40, and then extends towards the back 26 of the container to gripping back edge 42a.

In Fig. 2, corresponding gripping back edge 42b on the other side of the container is shown, as well as corresponding gripping forward edges 43a and 43b which are situated at the bottom of termination gripping point 40. It is preferred for the distance between 43a and 43b to be slightly less than the distance between 42a and 42b. In this way the gripping means converges slightly along its length, which generally provides a more secure and comfortable grip.

It can be appreciated that other embodiments of the recess 34 and tapered section 38 are possible. For example, the transition between the sections may be more gradual, so that the termination gripping point 40 is less distinct and the recess 34 and tapered section 38 may be less distinguishable as separate elements. However, regardless of the particular embodiment, it can be appreciated that the recess 34 represents a break or narrowing in the wall 14 of the container 10 so that a smaller and more comfortable gripping surface is available to the user. A smaller gripping surface will be more likely to reduce the chance of the user experiencing hand strain when gripping the container 10, and will generally be more comfortable.

It is also preferable that the recess 34 include a termination gripping point 40 to provide a convenient point at which the user's thumb and fingers can receive support and rest against. The resting feature is a result of the user's digits naturally pressing or resting against the surface of adjacent tapered section 38.

While the present invention contemplates a gripping means comprising a single recess 34, more than one recess is also possible. An embodiment having two recesses 34 is preferred because a user's hand will grip the gripping means in two places. In particular, where the gripping means

comprises first and second recesses 34 in the wall 14, the first recess will preferably be spaced sufficiently apart from the second recess so as to permit the container 10 to be gripped by the placement of a thumb of the user's hand in the first recess and at least one finger of the user's hand in the second recess. Figure 5 shows this embodiment with a user's hand illustrated, the user's thumb gripping one recess 34 and the other fingers gripping the other recess. Also as shown in the drawing, it is preferable for the user's palm to fit snugly against and have substantial contact with the back 26 of the container 10.

The gripping means 20 will preferably also include ridges 44 to facilitate gripping of the gripping means 20 by the user. The ridges 44 may be grooves embedded in the surface of the recess 34, but other forms of ridges, or other grip enhancement features, are also contemplated. For example, pieces of material having grip enhancement properties may be glued or otherwise attached to a smooth surface such as recess 34 to provide similar benefits. The ridges 44 may also be formed on the tapered section 38, since the user's digits will preferably also rest against that surface.

In the figures recess 34 is shown extending up from the base 12 to a termination point 46, where wall 14 expands outwardly and upwardly to form an upper tapered section 48. This configuration is preferred because, as shown in Fig. 5, the upper tapered section 48 provides a comfortable resting or support surface for the user's digits in an upward direction similar to the support and rest provided by tapered section 38 in a forward direction. This preferred embodiment may alternatively be characterized as the wall 14 having a wall height, with at least one recess 34 extending upwards from the base 12 for a distance less than the wall height. It can be appreciated however that other embodiments are also comprehended, such as for example, extending recess 34 all the way up from base 12 to top opening 16.

It is also preferred that recess 34 extend up from base 12, regardless of the eventual height of recess 34. This is because the container 10 will not

generally be stackable if there is any outward divergence at the bottom of the container. Accordingly, it is less preferred for there to be an outward tapered section at the bottom of the container, with the recess 34 commencing some distance above the base 12. Of course, if the stackable feature were not important in a particular application then such an embodiment might be more acceptable or preferred.

The dipping section 22 is preferably sized, shaped, and positioned to permit a brush to be inserted into the dipping section 22 through the top opening 16, to contact the paint 30 contained inside.

The dipping section therefore comprises a portion of the interior space or contained volume 18 of the container 10. In particular, the dipping section 22 may be viewed as the portion of the contained volume that is not within the gripping means 20. The relative position of the dipping section 22 may be seen in the top view of the container 10 shown in Fig. 3. In this figure it can be clearly seen that the dipping section 22 extends between termination gripping point 40 and the front 28 of the container.

The dipping section 22 may be viewed as including the tapered section 38 which is adjacent to the gripping means 20, followed by a longer section having a uniform width "w" adjacent to the front 28 of the container. In Fig. 3, the dipping section is shown having the uniform width "w" between an intersection point 50, where the tapered section 38 meets the wall 13, and the front 28 of the container 10.

If desired, the dipping section may alternatively be considered as comprising the uniform width section only, with the tapered section 38 comprising an intermediate section between the gripping means and the dipping section. With reference to Fig. 3, it is preferable that the distance from 40 to 50 be relatively short compared to the distance between 50 and 28.

The function of the dipping section 22 is to provide a suitable interior space for a brush to be dipped. The present invention comprehends that a brush may be inserted from anywhere along the top opening 16 into the

contained volume 18, including that portion contained within the gripping means 20. However, it is expected that the user will prefer to dip the brush in the dipping means 22 because it is wider than the gripping means, and accordingly easier to dip into, and also because it is closer to the tongue portion 24.

It is also appreciated that brushes are available in many sizes, from tiny artist brushes to, most commonly, the three and four inch brushes used for painting building interiors and the like. To enhance the general flexibility and usefulness of the container 10, and in particular with respect to use in building and large scale painting applications, it is comprehended that the container 10 be preferably configured to preferably accommodate at least three inch brushes, and preferably four inch brushes as well. As will be discussed in more detail below, this entails making the tongue portion 24 have a width of at least three or four inches.

It is preferred that the dipping section 22 have a dipping section width and the tongue portion have a tongue portion width, and that the dipping section width be substantially equal to the tongue portion width. The "dipping section width" is not meant to include the tapered section 38, regardless of whether the tapered section 38 is formally viewed as part of the dipping section. In Fig. 3 it can be seen that the dipping section and the tongue portion have the same width "w". It is also comprehended that the dipping section width will be substantially equal to the tongue portion width if its average width, not including any tapered section 38, is within the range of 85% to 115% of the tongue portion width. Therefore, rather than the dipping section have a completely uniform width, it may be designed to diverge or converge slightly, as long as the average width, not including a tapered section 38, is within the above specified range. However, it is most preferred for the dipping section width to be equal to the tongue portion width, as shown in the drawings.

It is preferred for the width of the two sections to be close or preferably equal because such a configuration enhances dipping efficiency. Specifically,

it enables a user to dip the brush into the dipping section, and then move the brush directly onto the tongue portion without having to re-orient the brush. This saves time and reduces or eliminates the need for the painter's wrist to turn or twist, as would be needed if the brush had to be re-oriented. It can be appreciated that painting is a very repetitive task, and that re-orientation of a brush, when repeated hundreds if not thousands of times, can lead to muscle strain and soreness, and even debilitating injury in some cases. Accordingly, it is preferred that the dipping section have the same width, or be within a close range, of the width of the tongue portion.

As can be seen in the figures, the tongue portion 24 is inclined, and extends upwardly and outwardly from the wall 14 adjacent to the dipping section 22. The tongue portion is also preferably sized, shaped, and positioned to permit a brush to be dabbed thereon to remove excess paint from the brush, and also to permit the excess paint to drain into the dipping section.

The tongue is inclined so that paint on the tongue's surface will be able to move by force of gravity back into the container. This feature of the invention is desirable because it helps keep the tongue relatively clean, so that it can be re-used effectively for dabbing purposes. The angle at which the tongue extends upwardly can vary as long as it is sufficient to permit paint to drain into the dipping section. However, the angle should also not be too high because that could make the tongue awkward to work with, particularly for dabbing brushes. It has been found that an inclination angle of approximately 45 degrees from the horizontal allows for both draining of excess paint and good workability, and accordingly this angle is preferred.

It can be seen from the figures that the preferred embodiment of the tongue portion is a rectangle. There is a leading edge 52, a bottom edge 54 where the tongue 24 joins wall 14 and dipping section 22, and sides 56. It can be appreciated that other embodiments are also possible, as long as the

tongue functions to provide a surface for dabbing, and edge for wiping, and is inclined to permit paint to drain into the dipping section.

The leading edge 52 is preferably sized and shaped to provide a distinct edge or point suitable for wiping a paint brush. If the brush is positioned so that the side of the brush to be wiped is pressed against the leading edge 52, and with the brush handle down and the bristles pointed up, as the brush is moved in a downward direction excess paint will be wiped off and be transferred to the surface of the tongue, from where it can drain into the dipping section. The user can increase the amount of paint drained by increasing pressure on the brush as it is being wiped.

The tongue portion 24 is also preferably sized and shaped to have a surface suitable for dabbing. In order to accommodate brushes of three or four inches in width, the tongue portion should be suitably wider, preferably about 3½ inches or 4½ inches respectively. The tongue portion should also have a length that is sufficiently long relative to the length of the brush being dabbed so that the full length of the brush can be dabbed without needing too many dabbing strokes. Preferably the tongue portion or dabbing surface length is at least 50% of the length of the brush to be dabbed. It can be appreciated that the tongue portion of the present invention can be made the full length of the brush to be dabbed, if desired.

It can be seen from the figures that the sides 56 of the tongue are bounded by attached vertical portions or edge barriers 58. The edge barriers are useful in that they prevent excess paint on the tongue portion, particularly paint that is near the edge of the sides 56, from spilling off the side. In the preferred embodiment shown, the edge barriers 58 comprise an extension of the wall 14. It can be appreciated that other embodiments of the edge barriers may also be used, as long as they function to block spilling of paint off the sides 56. It can also be appreciated that the tongue portion could be made without edge barriers. However, this configuration would not be preferred, since it could result in paint spilling off of the sides.

The preferred embodiment of the paint container 10 of the present invention may now be described in greater detail. As a starting point, it is worth noting that small size retail paint containers generally contain about 900 ml of paint, and that this amount of paint weighs approximately in the range of 4 lbs. The amount of paint in 900 ml, or more broadly 800-1000 ml, is sufficiently large for most applications so that the container should last for a reasonable amount of time before replenishment is required. The 4 lb. weight will be familiar to most people since it is the common retail size. It can be appreciated that people who find 4 lbs. too heavy can simply avoid filling the container to capacity, and instead use as much paint as they can comfortably hold. Similarly, it can be appreciated that the container of the present invention can be made in other embodiments that are scaled up or down in size, to hold more or less paint and be accordingly heavier or lighter, as desired.

It is also preferable for the paint container to be flexible enough to accommodate a wide variety of paint jobs, and accordingly to accommodate paint brushes having widths of at least 3 inches, and preferably 4 inches. It has been found that designing the container to have a tongue portion width of 4.5 inches is adequate to service a 4 inch paint brush. It can be appreciated again that the present invention can be designed with larger or smaller tongue portions, as appropriate for individual situations.

It has been found that a paint container having the following additional dimensions provides adequate results. The container of the preferred embodiment has a height, from the base 12 to the top opening 16, of about 6.25 inches. The base length "m", as shown in Fig. 3, is 4.25 inches, and the base width at the front 28 is also 4.25 inches. At the top of the container, the length from the back 26 to front 28 is 4.5 inches. The width of the dipping section and tongue portion "w" is, as noted above, 4.5 inches. It can be appreciated therefore that in the preferred embodiment there is an outward taper of 0.25 inches from the base 12 to the top of the container. This

represents an outward increment of .04 inches for every 1 inch in vertical height.

The length of the tongue portion from bottom edge 54 to leading edge 52 is 1.5 inches, and the tongue is inclined upwards at 45 degrees from the horizontal. This results in a total length along the top of the container from the back 26 of the container to the leading edge 52 of about 5.54 inches.

With reference to Fig. 3, the length "x" of the recess 34 from the back 26 to the termination gripping point 40 is 2.125 inches, which it may be noted is 50% of the length "m" of the base, which is 4.25 inches.

The width of the gripping means along the back 26, between 42a to 42b, is about 3.125 inches. This narrows down by about 1/8 or 3/16 of an inch to the far end, between 43a and 43b, to approximately 3 inches or 2 7/8 inches.

An aspect of the preferred embodiment is that since the gripping means is narrower than the dipping section, the center of gravity ("CoG") of the container 10 will frequently be located in the dipping section. This may cause a rotational torque about the gripping means which will have the effect of tilting the container 10 forward. As will be discussed below, this forward tilt can be beneficial to the user of the paint container 10. However, the forward tilt should not be too large or it could be uncomfortable to the user.

Figure 3 shows a dotted line 60 drawn through the center of the container 10. The user's hands will grip the container at about the termination gripping point 40. This is represented as a dotted line 62, with a center point 64. The CoG is shown in the dipping section, at a distance "d" from point 64.

In the circumstances shown, a rotational torque or moment will be produced about the gripping means equal to the weight of the container and its contents multiplied by the distance "d". The effect of the torque will be to tilt the container forward, in the sense that the tongue portion 24 will be urged downward, and the base 12 at back 26 will be urged upward. This torque factor is represented by curved arrow 66 in Fig. 5.

It has been found that in general, designing the container 10 so that the length "x" of the gripping means is preferably at least 40%, more preferably at least 45%, and most preferably at least 50% of the length "m" of the base 12 will provide a reasonably low torque value that will be comfortable to most users. It can be appreciated that if the container is made larger, for example, to hold more paint, the torque will increase because the weight of a full container through the CoG will increase. This would suggest extending the length of the gripping means towards or past 50% would be desirable. Conversely, for a smaller container a shorter grip means may be adequate.

More broadly, where the container has a center of gravity positioned between the gripping means and the tongue portion, so that a torque is created about the gripping means when the container is held by a user at the gripping means, the container is preferably sized and shaped to limit the torque to no more than one foot-pound, more preferably 0.8 foot-pounds, and most preferably 0.6 foot-pounds, when the container is full of paintable liquid.

It can now also be appreciated that if the recessed grip means is made narrower or wider it will change the distribution of volume of the container, which will have an effect on the resulting torque. In particular, if the recessed grip means between 42a and 42b, and between 43a and 43b, is made narrower, the CoG will move farther away, towards the front 28, which will increase "d". On the other hand, the overall capacity of the container may decline because the volume of the gripping means is smaller, so that the weight at the CoG may be somewhat less. Therefore, according to the present invention, the distribution of volume within the container is optimized to a predetermined agreeable level of torque, which may in turn help to determine the appropriate width of the recessed grip means.

Similarly, if the container is scaled larger the weight at the CoG will increase, which will increase the torque. It may then be preferable to reduce the length of the dipping section while increasing the height of the container, so that the torque will remain within the preferred range and not be too high so

as to be uncomfortable to a user. It is preferable for the container of the present invention to remain within the preferred torque range regardless of the size or volume capacity of the particular embodiment of the container.

The paint container 10 of the present invention is preferably made from plastic due to that material's light weight, low cost, compatibility with paintable liquids, and ease of manufacturing. It can be appreciated that other materials, such as stainless steel, aluminium and other metals, may also be used if they have some or all of the functional benefits of plastic. In some cases a higher cost material might be preferred if it offers certain benefits, such as being more durable or easier to clean than plastic, for example. The preferred plastic embodiment can be made using standard plastic manufacturing techniques such as injection moulding. This has the benefit of being low cost and producing containers of good quality.

The operation of the present invention can now be described. The user will begin by selecting a paintable liquid appropriate for the project. While painting a building using latex or oil based paint is most common, other paintable liquids such as varnish or stain, such as might be used with furniture or wooden fences, may also be used with the present invention.

The user will pour a designated amount of paint into the paint container. The user can choose to pour to the maximum capacity of the container, or a lesser amount if less is needed or if the weight of a full container is too high. Full capacity preferably means up to a level slightly below the bottom edge 54 of the tongue, for example about 1/4 inch or 3/8 inch, and not to the very top of the container 10. This level is preferred because paint higher than bottom edge 54 will overlap the tongue portion and interfere with the use of the tongue for dabbing. Further, paint at the bottom edge 54 will overlap the tongue portion when the container is tilted forward. Also, it is preferable for there to be an unfilled but walled space above the maximum paint level so that there will always be some protection against paint spilling out of the container

inadvertently as the user moves about. Such a space is available in the present invention due to wall 14 extending as high as leading edge 52.

When the container is filled with the desired amount of paint, the user can pick it up in one hand, as shown in Fig. 5, and should find that it can be held comfortably. This is because the weight should not be excessively heavy, the grip means will be recessed so that it can be held without the user's hand having to stretch excessively, and ridges will provide additional grip security. As well, any forward torque should not be excessive, being preferably no more than 1 foot-lb and more preferably less than that. As a result, the user should be able to comfortably move about the paint site for extended periods while holding the paint container 10 in one hand.

When the user begins painting, the first step will be to dip the brush in the paint container. This procedure may be efficiently and easily done due to the design of the present invention. The paint container has an unobstructed top, unlike some of the prior art, so the user does not have to be slowed down to check for an obstruction with each dip of the brush. The container is sized to have a reasonable capacity so that an adequate amount of painting can be done with each full container. There may be a slight forward tilt due to the torque operating on the grip means. This may be beneficial in that it is easier to insert a brush into an opening that is tilted forward rather than one that is rigidly vertical. In addition, the tilted position may make the contents of the container easier to view by the user. The dipping is also rendered more efficient by the fact that the brush does not have to be re-oriented when it is removed from the container.

After the brush is dipped, excess paint may be removed and a preferred paint profile achieved by wiping or dabbing the paint brush. As shown in Fig. 6a, the brush bristles may be wiped or scraped against the leading edge 52 of the tongue. The excess paint goes onto the tongue and is free to drain into the dipping section. A sample profile of a wiped brush is

shown in Fig. 6b, which shows a brush with a thin line of paint 30 along the bottom edge of the bristles.

If the user needs to dab the brush, the side of the brush may be dabbed against the dabbing surface of the tongue 24, as shown in Fig. 7a. It can also be appreciated that the dabbing motion can begin in the same motion by which the dipped brush is removed from the dipping section. For example, the brush can be dragged past the tongue as it is being removed so that all of the side of the brush will be dabbed. A sample profile of a dabbed brush is shown in Fig. 7b, which shows paint on almost the full height of the bristles. The thickness of the paint will be determined by the user according to the degree of dabbing applied.

It can be appreciated that through a combination of wiping and dabbing of the paint brush, an experienced painter can optimize the use of paint, save time in brush preparation, and more effectively paint the surfaces requiring application by brush.

When the user has completed the paint brushing job, the paint container may be washed and re-used at a later time. Alternatively, since it is preferably made of plastic, it may be discarded and recycled. Due to the expected low cost of the container, it should be relatively convenient to purchase additional containers for other paint jobs or for use with different colours of paint.

It will be appreciated by those skilled in the art that the foregoing description was in respect of preferred embodiments and that various alterations and modifications are possible within the broad scope of the appended claims without departing from the spirit of the invention. For example, the container may be made from a translucent material, which will enable the user to easily see through the container the level of available paint. Various other modifications will be apparent to those skilled in the art but are not described in any further detail herein.